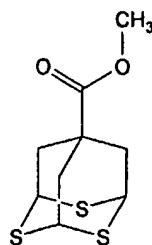


CLAIMS

What is claimed is:

1. A compound having the formula:



- 5 2. A method for synthesizing methyl 2,4,9-trithiaadamantane-7-carboxylate comprising of the step of:
reacting oxidized methyl triallyl acetate with a sulphuring agent and a Lewis acid to produce methyl 2,4,9-trithiaadamantane-7-carboxylate.
- 10 3. The method of claim 2, wherein the sulphuring agent is 2,4-bis(4-methoxyphenyl)-1,3,2,4-dithiadiphosphetane 2,4-disulfide; phosphorus pentasulfide hexamethyl-disiloxane; or a combination thereof.
- 15 4. The method of claim 2, wherein the sulphuring agent is reacted with oxidized methyl triallyl acetate in a relative mole ratio ranging from about 6:1 to about 1:1.
5. The method of claim 2, wherein the sulphuring agent is reacted with oxidized methyl triallyl acetate in a relative mole ratio ranging from about 3:1 to about 2:1
- 20 6. The method of claim 2, wherein the Lewis acid is $\text{BF}_3 \bullet \text{Et}_2\text{O}$, $\text{BCl}_3 \bullet \text{Et}_2\text{O}$, or a combination thereof.

7. The method of claim 2, wherein the Lewis acid is reacted with the oxidized methyl triallyl acetate in a relative mole ratio ranging from about 4:1 to about 1:1.
8. The method of claim 2, wherein the Lewis acid is reacted with the oxidized methyl triallyl acetate in a relative mole ratio ranging from about 3:1 to about 2:1.
9. The method of claim 2, wherein the step of reacting oxidized methyl triallyl acetate with a sulphuring agent and a Lewis acid to produce methyl 2,4,9-trithiaadamantane-7-carboxylate occurs in a noncoordinated or weakly coordinated solvent.

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10. The method of claim 9 wherein the noncoordinated or weakly coordinated solvent is methylene chloride, carbon tetrachloride, benzene, or any combination thereof.
11. The method of claim 2, further comprising the step of using a metallic powder to purify a methyl 2,4,9-trithiaadamantane-7-carboxylate reaction product.

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12. The method of claim 11, wherein the metallic powder is a copper powder.